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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,986	12/31/2001	Jong-hwan Lee	1349.1041	6194

21171 7590 03/10/2005

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EXAMINER
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PATEL, NITIN

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/029,986

Applicant(s)

LEE, JONG-HWAN

Examiner

Nitin Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/04/2004 has been entered.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Sugawara (US 2001/0015847 A1).

As per claim 1, Sugawara teaches a wearable display apparatus worn near left and right eyes of a user(In Fig.3 LFP and RFP) and to display images to be recognized through the left and right eyes, comprising: a main control unit(element C computing

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device in Fig.9 and In section 0067) outputting view display position adjustment information corresponding to inputted interpupillary distance setting information indicative of an interpupillary distance between the left and right eyes(In section 0054); and adjusting an imageposition based on the view display position adjustment information (in section 0067 and 0074 computing device C deciding and computing operation on the basis of the distance from the measuring device)and display units respectively display-processing image information inputted to an area within a display region corresponding to the view display position adjustment information, the display region being smaller than an entire view display area of the display units (in Fig.10).

As per claim 2, Sugawara teaches a key input unit producing the interpupillary distance setting information in correspondence with a manipulation by the user (in section (in Fig.5 and In section 0048).

As per claim 3, Sugawara teaches a sensor mounted on a main body, detecting the interpupillary distance of the user, and outputting the interpupillary distance setting information to the main control unit (in fig.9 element D and In section 0067).

As per claim 4, Sugawara teaches the display units comprise: a first display unit having a first display device mounted on a main body to display an image to the left eye of the user, and a second display unit having a second display device mounted on the main body to display an image to the right eye of the user, said first and second display device each comprising: a matrix display unit displaying pixel information by selective driving of row electrodes and column electrodes, the row electrodes being arranged along a horizontal direction, and the column electrodes being arranged along a direction

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crossed at an angle with respect to the horizontal direction; and a display control unit selectively driving the row electrodes and the column electrodes to display the image at a view display position corresponding to the view display position adjustment information(In section 0049 and section 0054 and 0051).

As per claim 5, Sugawara shows a display area of the matrix display unit is larger at a length in a horizontal direction corresponding to a direction linking a wearing position of the left and right eyes than an internally set image display area(In fig.10 and In section 0072).

As per claim 6, Sugarawa shows the display control unit comprises: a column electrode driving unit selecting the column electrodes and outputting image information; a row electrode driving unit sequentially activating the row electrodes; and a drive control unit controlling the row electrode driving unit and the column electrode driving unit to write image data to the row and column electrodes corresponding to the view display position adjustment information(in section 0049 device being LCD and in section 0067 computing device is being deciding the distance).

As per claims 7-11, Sugarawa teaches the column electrode driving unit comprises: a plurality of flip-flops connected in series, each of the plurality of flip-flops corresponding to one of the column electrodes; and a switch unit mounted to output to the corresponding column electrodes, image signals outputted from the drive control unit according to a signal outputted from an output port of the corresponding one of the plurality of flip-flops(In section 0049 device is being LCD and it well known in the art that in LCD device using multiple flip flop to shift data or image with a controller).

As per claim 12, Sugawara shows controlling a wearable display apparatus formed to be worn near to both eyes of a human body and of displaying images to be recognized through the eyes(In Fig.2,4), comprising: outputting view display position adjustment information corresponding to inputted interpupillary distance setting information indicative of an interpupillary distance between the left and right eyes(in section 0067); and display-processing image information inputted to an area within a display region corresponding to the view display position adjustment information, the display region being smaller than an entire view display area of the display unit (in Fig.1 element IM and IML)

As per claim 13, Sugawara shows the interpupillary distance setting information is produced by a manipulation of the user(In section 0048).

As per claim 14, Sugawara shows detecting the interpupillary distance setting information using a sensor mounted in a main body (in Fig.9 element D).

As per claim 15, Sugawara shows display units display-processing image information inputted to an areas corresponding to a view display position adjustment information of a main control unit to view on the display units wherein the main control unit adjust image display position based on the view display position adjustment information (in section 0067 computing device C being performed computing operation to measure distance).

As per claim 16, Sugawara shows the view display position adjustment information corresponds to inputted interpupillary distance setting information indicative of an interpupillary distance between left and right eyes of a user (in section 0068).

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As per claim 17, Sugawara teaches the interpupillary distance setting information for the user is set without movements of an optic system (in section 0067 and 0068).

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nitin Patel whose telephone number is 571-272-7677. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin H Shalwala can be reached on 571-272-7681. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NP

March 6, 2005



**VIJAY SHANKAR  
PRIMARY EXAMINER**